



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	D.A. BURTON et al.	Examiner	Adnan M. Mirza
Serial No.	09/591,024	Group Art Unit	2145
Filed	June 9, 2000	Docket No.	TUC92000014US1
TITLE	METHOD, SYSTEM, AND PROGRAM FOR SELECTING ONE OF MULTIPLE PATHS TO COMMUNICATE WITH A DEVICE		

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**PRE-APPEAL BRIEF REQUEST FOR REVIEW ARGUMENTS**

Applicants request review of the of the Examiner's rejection of claims 1-3, 5, 6, 8-12, 14-17, 19, 20, 22-26, 28-31, 33, 34, 36-40, and 42-45 as obvious (35 U.S.C. §103) over Bare (2003/0016624) in view of Hatakeyama (U.S. Patent No. 6,542,468) and Kinjo (U.S. Patent No. 6,944,684) in the Final Office Action of June 21, 2007.

With respect to claims 1, 15, and 29, Applicants request review of the finding that col. 4, lines 53-60 and col. 15, lines 1-9 and 56-60 of Hatakeyama teaches the claim requirements of: gathering transfer time data for first and second transfer sizes for each path, wherein the transfer size is a size of the data being transferred in one transfer operation; determining one path currently indicated as enabled to be selected to transfer data for the first transfer size that has transfer time data for the first transfer size satisfying a threshold transfer time; and indicating the determined path as disabled for the first transfer size, wherein paths indicated as disabled for one of the transfer sizes are not capable of being selected to use to transmit data having the transfer size, wherein the determined path indicated as disabled for the first transfer size is enabled to transfer data for the second transfer size. (Final Office Action, pgs. 2-3).

The cited col. 4 discusses selecting an optimum path by recording transmission data and response times per unit data length of response data which is returned from a transmission destination node to a source node, and by estimating the response time for each path using the recorded information. The cited col. 15 discusses storing in an actual response time table the request date and time when the service request was made, the request data length, the transmission source address, destination address and path selected.

Nowhere does the cited Hatakeyama teach gathering transfer time data and determining paths satisfying a threshold transfer time for different transfer sizes. In other words, the cited Hatakeyama does not select paths to use for different (first and second) transfer sizes. Instead, the cited Hatakeyama selects an optimal path, and does not select different paths for different (first and second) transfer sizes as claimed.

Applicants further require review of the cited Hatakeyama with respect to the claim requirement of indicating the determined path as disabled for the first transfer size, yet enabled for another (the second transfer size). (Final Office Action, pgs. 2-3) Although the cited Hatakeyama records response times for the purpose of selecting an optimum path, the cited Hatakeyama does not teach that the path determined to have a transfer time for a first transfer size satisfying a threshold is indicated as disabled for the first transfer size, where that determined path is enabled to transfer data for a second (or different) transfer size. In other words, the cited optimization of Hatakeyama does not teach optimizing by disabling a path for a first transfer size when the transfer time for the first transfer size satisfies a threshold transfer time, where the path disabled for one (the claimed first) transfer size is enabled to transfer data for a different (the claimed second) transfer size. .

Applicants further request review of the citation to col. 2, lines 29-38 of Kinjo as teaching the claim requirements of determining one path having a transfer time for a first transfer size that satisfies a threshold and then indicating that determined path as disabled for the first transfer size. (Final Office Action, pgs. 4-5) (Note, the Examiner cited col. 3, lines 29-38 of Kinjo, but Applicants submit the Examiner intended to cite col. 2, lines 29-38 which appears to describe the section of Kinjo the Examiner references, not col. 3).

The cited col. 2 of Kinjo discusses how a first communication path is used for a smaller first transfer size, less than a predetermined size, and a second communication path is used for a larger second transfer size, greater than the predetermined size. Although Kinjo discusses how paths may be dedicated to different transfer sizes, there is no teaching of determining a path that has transfer time data for the first transfer size satisfying a threshold and then indicating that the determined path is disabled for that first transfer size. The cited Kinjo nowhere teaches or suggests that a path dedicated to a specific transfer size is tested to see if the path's transfer time for that transfer size satisfies a threshold and, then if so, disabling the path for one (the claimed first) transfer size and enabling the path to transfer data for a different (the claimed second) transfer size. Instead, the cited Kinjo discusses how paths are dedicated to particular transfer sizes, but not how they may be disabled and enabled for different transfer sizes depending on whether their transfer time for different transfer sizes satisfies the threshold transfer time.

Applicants further request review of the Examiner's finding that it would have been obvious to have "autonomous selecting an optimum path by recording transmission data and

response time per unit data length of response data.” (Final Office Action, pg. 3) The claims do not just require selecting an optimum path based on recorded response data, but instead require determining whether a path’s transfer time for different (first or second) transfer sizes satisfies a threshold and then indicating that path as disabled for one transfer size (the first), yet enabled for another based on whether the path’s transfer time satisfies the threshold for the different transfer sizes. The cited Hatakeyama and Kinjo nowhere teach recorded response data used to determine whether path’s transfer time for specific transfer sizes satisfy thresholds.

In the Response to Arguments, the Examiner stated that “[o]ne ordinary skill in the art at the time of the invention knows that exceeding the threshold of the transfer size and deselecting it and selecting a path with a higher transfer size is also interpreted as disabling the for the given transfer size upon reaching certain threshold”. (Final Office Action, pg. 1) Applicants request review because the Examiner has not cited any art that teaches or suggests determining a path whose transfer time for a specific (first) transfer size satisfies a threshold transfer time and then disabling that path for that transfer size.

With respect to claims 2, 16, and 30, Applicants request review of the finding that col. 5, lines 37-42 of Hatakeyama teaches indicating one disabled path as enabled after performing a threshold number of transfer operations. (Final Office Action, pg. 5).

The cited col. 5 mentions a method for selecting a path of data transmitted from a source to a destination node, and a network path of data returned from the transmission destination node in an environment where nodes are distributed and located via a network. Nowhere does this cited col. 5 teach the claim requirement of indicating one disabled path as enabled after performing a threshold number of transfer operations.

Moreover, the cited Hatakeyama teaches away from enabling a path after a threshold number of transfer operations as claimed because Hatakeyama discusses a selection method that estimates the response time of a path to select a path with the minimum estimated response time. (Hatakeyama, col. 5, line 37 to col. 6, line 5) Applicants submit that selecting the optimum path to use based on response data does not disclose the specific claim requirement of indicating a disabled path as enabled after performing a threshold number of operations.

With respect to independent claims 5, 19, and 33, Applicants request review of the finding that col. 22, lines 40-56 of Hatakeyama teaches gathering a cumulative transfer time for all transfer operations for each of the transfer sizes during a measurement period through the

path and a cumulative number of the transfer operations for each of the transfer size ranges during the measurement period. (Final Office Action, pg. 6)

The cited col. 22 discusses a response time for paths that can be estimated even if response data cannot be collected by using previously stored actual response time per unit data length. Although the cited col. 22 discusses using stored response times per unit data length, nowhere does the cited col. 22 teach gathering a cumulative transfer time and cumulative number of transfer operations for different transfer size ranges.

Applicants further request review of the finding that col. 22, lines 57-64 of Hatakeyama teaches the claim requirement that for each enabled path, determining the average cumulative transfer time for each of the transfer size ranges for the measurement period by dividing the cumulative time for the transfer size range by the cumulative number of transfers for the transfer size range. (Final Office Action, pg. 6)

The cited col. 22 mentions that with the path selecting method using actual response time per unit data length, the overall response performance from the path is evaluated so an optimum path may be selected. This cited measured information is different from and does not teach the claimed information of the average cumulative transfer time for each of the transfer size ranges calculated by dividing the cumulative time for the transfer size range by the cumulative number of transfers for the transfer size range. There is no mention in the cited col. 22 of determining path performance based on dividing a cumulative time by the number of transfers for each of the transfer size ranges, where there are different values for different transfer size ranges. Instead, the cited col. 22 discusses using the response time per unit data length, not number of transfers as claimed. Moreover, nowhere does the cited col. 22 teach indicating a path as disabled if the average cumulative transfer time for the path satisfies the threshold.

With respect to claims 6, 20, and 34 that depend from claims 5, 19, and 33, Applicants request review of the finding that col. 23, lines 14-19 of Hatakeyama teaches the requirement that the measurement period comprises a number of transfer operations for all paths and that the determination to disable paths occurs after the number of transfer operations in the measurement period has occurred. (Final Office Action, pg. 6)

The cited col. 23 mentions that as the number of nodes and path patterns to be selected grow, the amount of calculation time for estimating an optimum path increases, but the algorithm allows estimation with a relatively small amount of calculation despite increased complexity.

This discussion of the scalability of the discussed algorithm nowhere teaches or suggests the claim requirement that a measurement period comprises a number of transfer operations for all paths for different transfer size ranges. Instead, the cited col. 23 mentions that the algorithm operation time increases as complexity of the network increases.

Applicants further requires review of the finding that col. 23, lines 20-26 of Hatakeyama teaches starting another measurement period to gather transfer time data for the transfer size ranges after determining paths to disable. (Final Office Action, pg. 6-7)

The cited col. 23 mentions that with the algorithm it is sufficient to calculate a difference of an estimation individual, which occurs due to a network environment change, and that it does not require performing a calculation based on the entire environmental data each time a path is selected. Nowhere does the cited col. 23 teach the claim requirement of starting another measurement period to gather transfer time data for the transfer time ranges after determining paths to disable. Instead, the cited col. 23 mentions that the calculation does not have to occur each time a path is selected.

Applicants further request review of claims 3, 6, 8-11, 17, 20, 22-25, 31, 34, and 36-39 for the reasons set forth in the Response dated March 22, 2007, pgs. 16-25.

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